

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I – NEW ENGLAND**

IN THE MATTER OF)	Docket No. AAA-08-0007
)	
The Dow Chemical Company)	ADMINISTRATIVE ORDER
1761 Route 12)	AND
Gales Ferry, CT 06335)	REPORTING REQUIREMENT
)	
Proceeding under Sections 113)	
and 114 of the Clean Air Act)	

INTRODUCTION

1. The United States Environmental Protection Agency, Region I (“EPA” or “the Agency”) issues this Administrative Order and this Reporting Requirement to the Dow Chemical Company (“Dow”) Allyn Point Facility (“the Facility”), located at 1761 Route 12, Gales Ferry, Connecticut, under the authority of Sections 113(a)(3) and 114(a)(1) of the Clean Air Act (“CAA”), 42 U.S.C. §§7413(a)(3) and 7414(a)(1).
2. The Administrative Order describes EPA’s findings that Dow violated the National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins (“Group IV Polymers and Resins NESHAP”), found at 40 Code of Federal Regulations (“C.F.R.”) Part 63, Subpart JJJ; the National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins (“Group I Polymers and Resins NESHAP”), found at 40 C.F.R. Part 63, Subpart U; and Conditions of its Title V Operating Permit (092-0024-TV), issued by the Connecticut Department of Environmental Protection (“CT DEP”) on April 22, 2004.
3. This Administrative Order also describes EPA’s findings that Dow violated Section 608 of the CAA and its implementing regulations, found at 40 C.F.R. Part 82, Subpart F

(“Stratospheric Ozone Protection Regulations”). These federal regulations establish requirements for the service, maintenance, repair and disposal of industrial process refrigeration (“IPR”) appliances that contain ozone-depleting substances (“ODS”), commonly referred to as “refrigerant.”

4. This Administrative Order requires Dow to comply as expeditiously as practicable with the requirements of the Group I Polymers and Resins NESHAP, the Group IV Polymers and Resins NESHAP, its Title V Operating Permit, and the Stratospheric Ozone Protection Regulations.

5. Section 114(a)(1) of the CAA, 42 U.S.C. §7414(a)(1), gives EPA the authority to require Dow to provide information to EPA so that the Agency can evaluate Dow’s compliance with the CAA and its implementing regulations.

6. This Reporting Requirement compels Dow to submit information to EPA about its facility and operations at its Gales Ferry location.

LEGAL AND FACTUAL BASIS

7. Styrene and 1,3 butadiene are hazardous air pollutants (“HAPs”) and volatile organic compounds (“VOCs”) regulated under the CAA.

8. Dow manufactures polystyrene and acrylonitrile-butadiene-styrene at the Facility. As a result, Dow is subject to the requirements of the Group I Polymers and Resins NESHAP.

9. Dow manufactures styrene/butadiene latexes at the Facility. As a result, Dow is subject to the requirements of the Group IV Polymers and Resins NESHAP.

10. Dow's manufacturing operations are covered under a Title V Operating Permit (Permit No. 092-0024-TV), issued by CT DEP on April 22, 2004. Under Section 502(a) of the CAA, it is unlawful to violate any requirement of a Title V Operating Permit.
11. Dow operates IPR appliances that use ODS, such as R-22. These IPR units have refrigerant capacities over 50 pounds and are therefore subject to the requirements contained in the Stratospheric Ozone Protection Regulations.
12. On June 13, 2007, EPA and CT DEP conducted a joint inspection of Dow's styrene manufacturing operations at the Facility. EPA also reviewed reports submitted to CT DEP by Dow.
13. According to the Title V Operating Permit, Condition H.3.4(6), Dow must keep open-ended lines closed.
14. Dow failed to keep an open-ended line closed at emission unit GEU-016 on May 3, 2005 and June 21, 2005.
15. According to the Title V Operating Permit, Conditions H.3.4(2) and H.3.4(12), Dow must keep records of visual inspections for pumps and agitators.
16. Dow failed to keep records of visual inspections for pumps and agitators for the period of December 7, 2005 through December 17, 2005.
17. According to the Title V Operating Permit, Condition H.3.3, Dow must record and report parameter monitoring results when using a combustion device to achieve the required reduction of organic HAP from unit GEU-016.
18. Dow failed to keep records of the thermal oxidizer "TOX Unit" temperatures for the following days: February 5, March 17, April 10, and April 16, 2006.

19. According to the Title V Operating Permit, Condition N.1, Dow must maintain a removal efficiency of total VOCs of no less than 90% for emission unit GEU-033.

20. For August 2005, Dow reported that removal efficiency of total VOCs was 62% for emission unit GEU-033.

21. According to 40 C.F.R. Part 82, Subpart F, owners or operators of IPR units containing 50 or more pounds of refrigerant must keep servicing records documenting the date and type of service, as well as the quantity of refrigerant added.

22. When an IPR unit is found to be leaking ODS at a rate such that 35 percent or more of its refrigerant charge would leak out of the unit over a twelve month period, the owner or operator of such unit is required by 40 C.F.R. Part 82, Subpart F to:

- a. repair the leak within specified time frames such that the leak rate after the repair is below 35 percent over a twelve month period; and
- b. verify that the repair was successful by conducting initial and follow-up leak testing; or
- c. instead of repairing the leak, or upon finding that an attempted leak repair was not successful (i.e., if follow-up leak verification testing demonstrates that the IPR unit is still leaking at a rate equal to or greater than 35 percent), the owner or operator of the IPR unit must develop a plan to retrofit or retire the IPR unit, and then retrofit or retire the unit within one year.

23. Information provided to EPA by Dow regarding two IPR units (North Chiller and 30 Chiller) indicates that:

- a. Dow failed to conduct initial and follow-up leak repair verification tests on the units and/or failed to document that initial and follow-up leak repair verification tests were conducted as required by 40 C.F.R. §82.156(i)(3);
- b. Dow failed to keep required service records as mandated by 40 C.F.R. §82.166(k). (See Table 1 for a list of specific violations regarding each unit).

FINDINGS

- 24. Based on the foregoing, EPA finds that Dow failed to keep an open-ended line closed on at least two days of operation. Accordingly, Dow violated Condition H.3.4(6) of its Title V Operating Permit.
- 25. EPA finds that Dow failed to keep records of visual inspections for pumps and agitators. Accordingly, Dow violated Conditions H.3.4(2) and H.3.4(12) of its Title V Operating Permit.
- 26. Dow failed to keep records of the thermal oxidizer “TOX Unit” temperatures. Accordingly, Dow violated Condition H.3.3 of its Title V Operating Permit.
- 27. Dow failed to maintain removal efficiency for total VOCs of no less than 90% for emission unit GEU-033. Accordingly, Dow violated Condition N.1 of its Title V Operating Permit.
- 28. Dow failed to conduct initial and follow-up leak repair verification tests on two CFC units and/or failed to document that initial and follow-up leak repair verification tests were conducted, in violation of the Stratospheric Ozone Protection Regulations.
- 29. Dow failed to keep required service records, in violation of the Stratospheric Ozone Protection Regulations.

ADMINISTRATIVE ORDER

30. Pursuant to Section 113(a)(3) of the CAA, EPA hereby orders Dow to comply with all applicable requirements of the Group I Polymers and Resins NESHAP, the Group IV Polymers and Resins NESHAP, its Title V Operating Permit, and the Stratospheric Ozone Protection Regulations. Dow shall comply with all such requirements within 30 days of receipt of this Administrative Order.

REPORTING REQUIREMENT

31. Pursuant to Section 114(a)(1) of the CAA, Dow shall submit the following information to EPA and CT DEP within 30 days of receipt of this Administrative Order and Reporting Requirement:

- a. a list of all storage vessels with capacity greater than or equal to 40 cubic meters (m^3) that Dow uses to store volatile organic liquids. Only provide information about storage vessels that were constructed, reconstructed, or modified after July 23, 1984;
- b. a description of the type and size (volume) of each storage vessel referenced above;
- c. a description of the kind of material stored in each storage vessel referenced above, including the vapor pressure of each material and whether the material is HAP or VOC;
- d. a description of the control technology Dow employs to reduce HAP and/or VOC emissions from the above referenced vessels;
- e. the frequency of Dow's inspections of each storage vessel and a description of the inspection method;
- f. documentation of the initial and annual inspection records for the last five years for all storage vessels referenced above, as required by Condition H.3.2(3) of Dow's Title V Operating Permit;

- g. documentation of Dow's response to all leaks found during the June 13, 2007 inspection (see attached list), including the dates and a description of initial and final repairs;
 - h. documentation of Dow's response for the leaks found in 2004, 2005, and 2006, including, but not limited to, those noted in the Title V semi-annual reports for styrene, latex, or other processes. In the response, include copies of Title V semi-annual reports for all three years. For each leak provide:
 - i. the date of the leak;
 - ii. a description of the leak;
 - iii. the date of the initial repair;
 - iv. a description of the initial repair;
 - v. the date of the final repair; and
 - vi. a description of the final repair;
 - i. a list of all pressure vacuum relief valves ("PVRVs"), including the location, set point, and maximum operating pressure of the process that each PVRV serves;
 - j. documentation of Dow's responses to any leaks discovered at any PVRV from January 1, 2002 to the present, including initial and final repairs; and
 - k. for any period, from January 1, 2002 to the present, that the removal efficiency of emission unit GEU-033 fell below 90%, provide the date, time, percent removal, and a brief description of the incident.
32. Submit the information required above to the following address:

Susan Studlien, Director
Office of Environmental Stewardship
U.S. Environmental Protection Agency – Region I
1 Congress Street
Suite 1100 (SEA)
Boston, MA 02114-2023
ATTN: Abdi T. Mohamoud, Environmental Engineer

And

Robert Girard, Assistant Director
Air Compliance and Field Operation
CT Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

33. Please be advised that failure to provide information required by this Reporting Requirement may result in a civil or administrative enforcement action by EPA under Section 113 of the CAA, 42 U.S.C. §7413, ordering the submission of the required information, seeking monetary penalties, or both. Dow should also be aware that federal law provides for criminal penalties for anyone who knowingly makes any false statement, representation, or certification in a report required by EPA.

34. Dow may, if desired, assert a business confidentiality claim, covering part or all of the information requested, in the manner described by 40 C.F.R. §2.203(b). Note that certain categories of information are not properly the subject of these claims. If no such claim accompanies the information when it is received by EPA, the information may be made available to the public by EPA without further notice to Dow. Please be aware that the State of Connecticut may have different rules and regulations governing the protection of confidential business information.

ENFORCEMENT

35. At any time following the issuance of this Administrative Order and Reporting Requirement, EPA may take any or all of the following actions: (a) issue a further order requiring compliance with 40 C.F.R. Parts 63 and 82, and Section 502 of the CAA; (b) issue an administrative penalty order; or (c) bring a civil action in federal district court for an injunction and/or monetary penalties up to \$32,500 per day for each violation. *See* Sections 113(a), (b) and (d) of the CAA, 42 U.S.C. §§7413(a), (b) and (d), and 40 C.F.R. Part 19 (CAA judicial and administrative penalties raised from \$25,000 to \$32,500, effective March 16, 2004). Be advised that Section 113(e)(2) of the CAA, 42 U.S.C. §7413(e)(2), contains provisions that affect the

burden of proof with respect to violations that continue or recur on or after the date of issuance of this Administrative Order and Reporting Requirement.

36. If Dow has knowingly violated its Title V Operating Permit and/or the federal requirements found at 40 C.F.R. Parts 63 and 82, Dow and its responsible corporate officers may be subject to criminal penalties under Title 18 of the United States Code, imprisonment for not more than five years, or both. *See* Section 113(c) of the CAA, 42 U.S.C. §7413(c). Be advised that issuance of this Administrative Order and Reporting Requirement does not preclude EPA from electing to pursue any other remedies or sanctions authorized by law that are available to address these violations.

OPPORTUNITY TO CONFER

37. Dow may confer with EPA concerning this Administrative Order and Reporting Requirement, as well as the findings on which it is based. To schedule a conference, please contact Enforcement Counsel Amanda Helwig at (617) 918-1180, within seven days of receipt of this Administrative Order and Reporting Requirement. Dow has the right to be represented by counsel at the conference.

EFFECTIVE DATE AND APPLICABILITY

38. This Administrative Order and Reporting Requirement shall become effective immediately upon issuance by EPA. The provisions of this Administrative Order and Reporting Requirement apply to Dow, its officers, agents, servants, employees, successors, and assigns, and to all persons, firms, and corporations acting under, through, or for Dow. This Administrative Order and Reporting Requirement are not subject to Office of Management and Budget review

under the Paperwork Reduction Act, 44 U.S.C. Chapter 35. If Dow has any questions regarding this Administrative Order and Reporting Requirement, please contact Enforcement Counsel Amanda Helwig at (617) 918-1180 or Environmental Engineer Abdi T. Mohamoud at (617) 918-1858.

Susan Studlien, Director
Office of Environmental Stewardship
U.S. EPA, Region I

Date